PACKAGING

THE CAHNERS MAGAZINE FOR DECISION-MAKERS JULY 1990

C1850—1

THE PACKAGING 100

Mergers & Sales Shift Balance Of Power Among Giants

Consumer Survey: More Buy "Green" But What Is "Green"?

MAP/CAP Enters Food Mainstream

A Quiz: What Checkweigher Do You Need?

How To Specify Metal Cans

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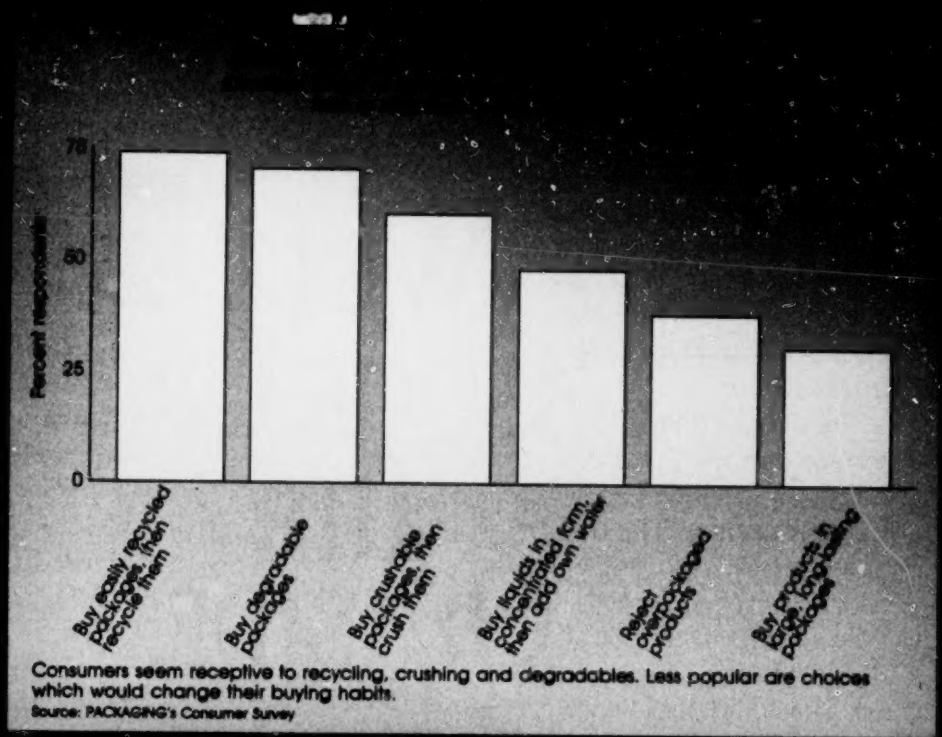
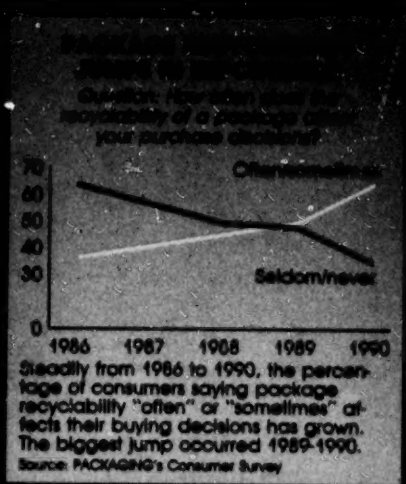


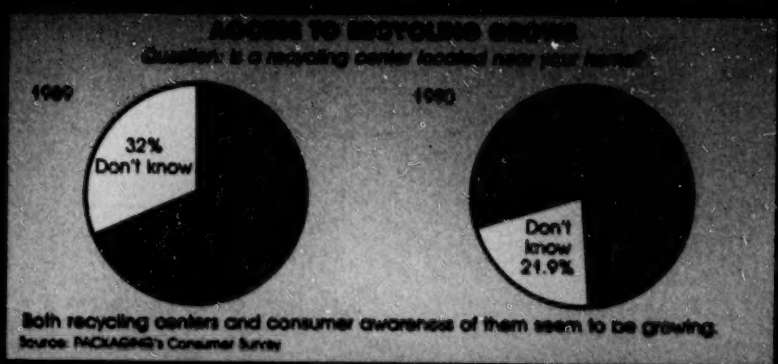
Consumers seem receptive to recycling, crushing and degradables. Less popular are choices which would change their buying habits.

Source: PACKAGING's Consumer Survey



Steadily from 1986 to 1990, the percentage of consumers saying package recyclability "often" or "sometimes" affects their buying decisions has grown. The biggest jump occurred 1989-1990.

Source: PACKAGING's Consumer Survey



Both recycling centers and consumer awareness of them seem to be growing.

Source: PACKAGING's Consumer Survey

SPECIAL REPORT

Consumers Grapple With 'Green' Packaging

Our survey shows that shoppers, though concerned about trash, want the freedom to buy packages they like

By Melissa Larson Senior Editor

American consumers want to do the right thing for the environment. They realize there's a trash problem. They understand that used packaging becomes trash.

But will they accept restrictions on their choice of packaging? According to PACKAGING's recent nationwide poll of 740 consumers, the answer is no.

When it comes to choosing from a list of specific actions to help reduce packaging waste, consumers seem receptive to those that call for some post-purchase involvement, including recycling of packages. They're not as enthusiastic about the choices that call for a radical change in their shopping habits, such as being forced to buy only those packages that have been designated "green."

Almost 75% of those polled say they're willing to "buy easily recycled packages, then recycle them," and almost 71% say they're willing to "buy degradable packages." But only 38% say they will "reject overpackaged products" and less than 31% are receptive to buying "products in large, long-lasting packages." The attitude seems to be, "Tell me how to dispose of what I buy, but don't tell me *what* to buy."

Recyclability is an increasingly important package attribute and is affecting purchase decisions, according to our survey. The number of respondents who tell us that package recyclability "often/sometimes" affects their decision to buy a product has climbed steadily to its present figure of 65%, while those who report that it "seldom/never" sways them has dropped just as steadily, to 35% this year.

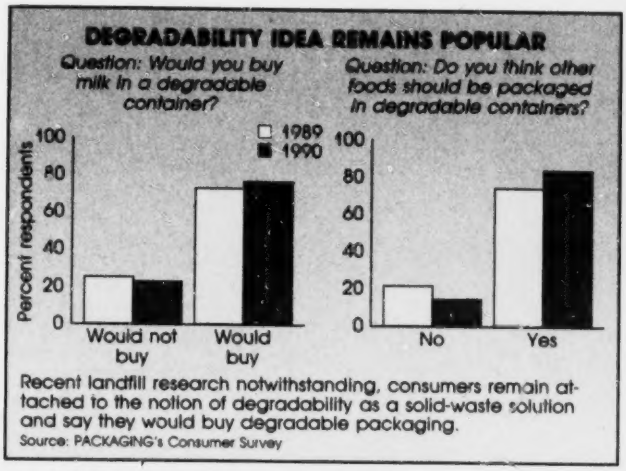
The most easily recycled packaging material, according to consumers we polled, is aluminum. More than 88% of respondents describe aluminum as "very easy/easy" to recycle—up slightly from 86% in 1989. Ranked next is paper, with 83% of those polled rating it as "very easy/easy."

The perception of glass recyclability is up sharply this year. About 70% of the consumers polled this year think glass is easy to recycle, vs. 62% one year ago. Perception of the

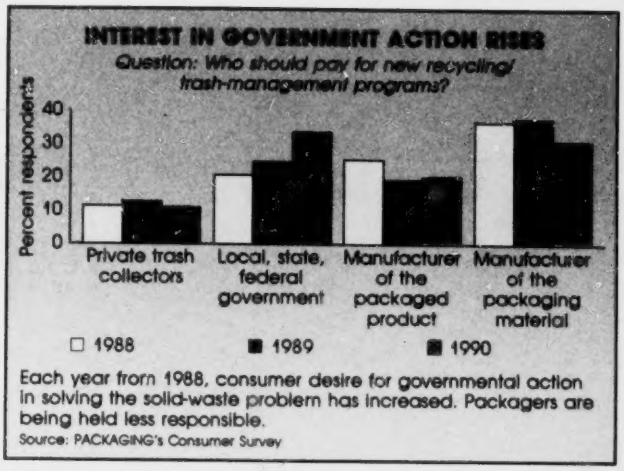
59.2% per-can or per-bag charges for curbside trash pickup
27.6% Higher retail taxes on packaged goods
4.9% Higher federal income tax
8.1% Don't know/ no answer

Consumers overwhelmingly favor funding new trash-management programs through curbside charges when they put out the trash, over higher income taxes or retail taxes on what they buy.
Source: PACKAGING's Consumer Survey

Tell us how to dispose of what we buy, say consumers, but don't tell us what to buy



Recent landfill research notwithstanding, consumers remain attached to the notion of degradability as a solid-waste solution and say they would buy degradable packaging.
Source: PACKAGING's Consumer Survey



Each year from 1988, consumer desire for governmental action in solving the solid-waste problem has increased. Packagers are being held less responsible.
Source: PACKAGING's Consumer Survey

recyclability of steel remains flat at slightly under 45%.

Perception of plastics recyclability is also relatively unchanged in the consumer's mind. About 41% rate plastic "very easy/easy" to recycle. That is actually down, although by less than one percentage point, from last year.

Consumers indicate they have plenty of reason to worry about the recyclability of the packaging they use. Roughly 13% of those we polled say they feel that more than three-quarters of the trash they discard is made up of packaging. Another 24% estimate that one-half to three-quarters of their trash is packaging. Approximately 26% put the packaging figure at one-quarter to one-half of their trash total—and, according to most widely accepted estimates, this is closest to the mark. The remaining 20% say used packaging makes up one-tenth to one-quarter of their trash.

Consumers still favor the notion of degradable packaging as a solid-waste solution, despite continuing research showing that significant degradation does not and should not occur in landfills. Their attitude may continue to be influenced by claims of degradability seen on packages of such products as plastic trash bags—claims that have come under fire from government and consumer-advocate groups as misleading.

More than 75% of our survey respondents say they would buy milk in degradable containers if they could. Also, 83% tell us they think other foods should be packaged in degradable containers—up sharply from about 74% last year.

Uncle Sam, we need you

As consumers learn more about the solid-waste issue, their attitudes about how to solve the problem shift. When asked "Who should pay for new recycling programs?" more of our respondents this year than last cite "local, state and federal government." Fully 33% want help from government—up from 25% in 1989 and about 20% in 1988. Conversely, the percentage of those who think the "manufacturer of the packaging material" should shoulder these solid-waste expenses has dropped from about 37% in both 1988 and 1989 to less than 31% in 1990.

Taxes, however, are not popular. When asked "How should new trash-management programs be paid for?" more than 59% of the consumers choose "per-can or per-bag charges for curbside trash pickup" vs. about 28% who favor "high retail taxes on packaged goods." Again, this seems to indicate a willingness to participate in disposal of packaging after-the-fact rather than paying more up front for the goods themselves, and thus perhaps experiencing a restriction in choices.

However, many consumers say they would be willing to pay up to ten cents more for a product in an "easy-to-recycle" package vs. the same product in one that is "difficult to recycle." The percentage of respondents who said they were willing to pay from one to five cents more increased from about 38% last year to about 43% this year. Those who would pay six to 10 cents more increased from 11% to 20%.

Consumers drew the line at paying 11 to 15 cents more per package, however. That percentage dropped from about 8% to 6%. The percentage of respondents who said they were unwilling to pay anything more for an easy-to-recycle package decreased from about 41% to less than 30%.

Of course, what consumers say they are willing to pay to help solve a problem, and what they actually do, sometimes differ.

Recycling centers, incinerators, landfills

About 49% of our respondents this year tell us there's a recycling center located near them, vs. 39% in 1989.

What about the other two methods of handling trash? Consumers favor incinerators over landfills, according to our survey. When asked to choose between those two methods of disposing of used packaging materials, 68% choose incineration, vs. about 28% who opt for landfilling. These proportions have remained fairly constant since last year, when 65% chose burning and 30% chose the dump.

Support for new municipal trash incinerators and landfills is also steady. Slightly less than 65% of consumers tell us they would favor a new incinerator in their community, vs. about 66% last year. Roughly 39% say they would support a new landfill in their community this year, vs. 35% in 1989.

What consumers seem to be telling us is that they're willing to save used packaging, sort it and even crush it if that will help. They want environmentally friendly packaging . . . so long as that doesn't restrict their options at the checkout counter. Rather than less, they want more—more accurate information and more viable choices. ■

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Average	433
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MELISSA LARSON
Senior Editor

"Our research shows that future success will continue to belong to those marketers who can deliver a product/package combination the consumer wants. Incorporating sound environmental design just adds an additional consumer benefit."

Do Packages Tell The Truth?

Professors study ethics of labeling; our survey reveals consumer concerns

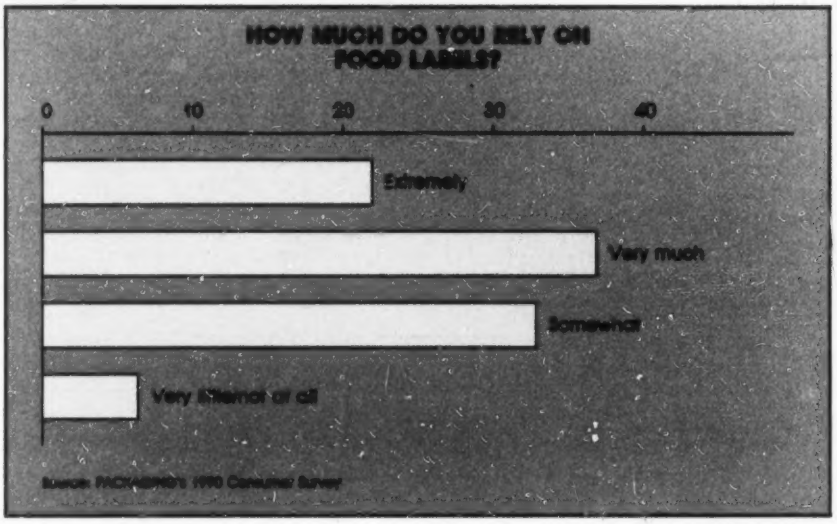
Do food processors purposefully confuse consumers with product claims on their packages?

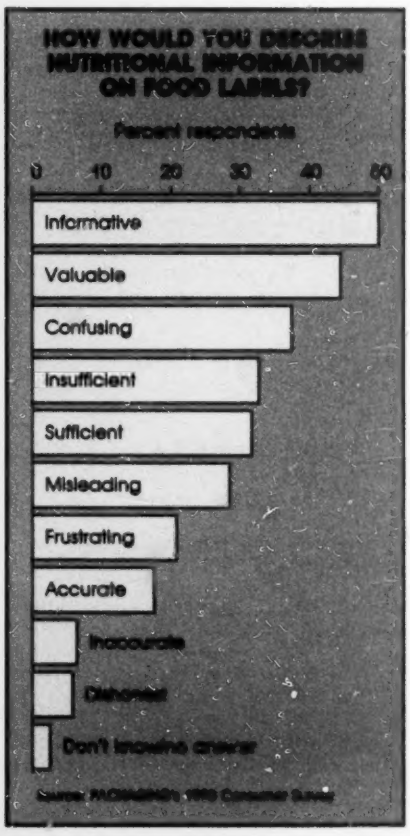
Are some packagers intentionally misleading shoppers by getting too creative with product labels?

In other words, is heated competition for the consumer's dollar forcing users of packaging to bend the rules of business ethics?

Those and other questions relating to the packaging field—product labeling in particular—are addressed in a new report by Robert J. Corey and Paula Fitzgerald Bone, assistant professors of marketing at West Virginia University. A grant from the Packaging Education Foundation helped fund the professors' work.

More than a few of the concerns raised by the professors in their paper *Ethical Packaging As an Expression of Corporate Values* are reflected in responses to PACKAGING's 1990 Consumer Survey. (For a complete report on the findings, see our June issue. Also see a related story this issue.)





Trusted but not always loved

Nearly two-thirds of the 700-plus consumers responding to our survey this year say they rely on food labels "extremely/very much." And consumers tend to think of labels as truthful: Corey and Bone cite a 1980 FDA survey in which only 1% of respondents said they had ever purchased a food product that was falsely labeled.

Products may not be being labeled "falsely," but that does not necessarily mean they are being labeled adequately. Consumers responding to PACKAGING's survey are not overwhelmingly laudatory when the subject is product labeling.

Using a list of adjectives from our survey, 50% of the respondents call food labels "informative" and 45% call them "valuable." That's the good news. The bad news is that 38% of our respondents call food labels "confusing," 33% call them "insufficient" and 29% call them "misleading." A small but significant 6% go so far as to use the word "dishonest."

The consumer's level of education seems to be a factor. In our survey, the percentage of respondents calling food labels "insufficient" and "misleading" goes up along with education.

What's 'low'? What's 'light'?

The FDA has been struggling for years to define what "low cholesterol" really is. "No cholesterol" has been used in advertising foods that could not possibly have ever contained cholesterol. And the seemingly straightforward term "light" has been made confusing by its use to describe everything from a product's fat content to its color.

Corey and Bone note in addition that "manufacturers can manipulate the serving size of a particular item, thereby influencing the nutritional information provided." And, they say, "separate listings of various types of sugars are sometimes used to disguise the fact that sweeteners are a primary product ingredient."

Under current law, nutritional labeling is required only when a nutritional claim is made about a product. Corey and Bone state that roughly 55% of food products now carry such labeling. But then they ask, "What about the other 45%? Does the consumer's right to information make the practice of not providing informative labeling unethical?"

The FDA is currently considering the pros and cons of requiring nutritional labeling on all food products. The agency is also studying other means of updating package label requirements. Congressional legislation too is being explored.

Another ethics issue pointed up by the two professors involves label legibility. Use of printing that is too small to be read easily may be increasingly criticized as the U.S. population grows older, they say. That could well prove true. However, PACKAGING's 1990 Consumer Survey reveals no correlation between the age of the consumer and his or her use of terms like "confusing" or "frustrating" to describe labels.

Already highly regulated

Corey and Bone say that "Package labeling is perhaps the most regulated . . . area of packaging." Much of that regulation is imposed by government. Increased self-regulation by food packagers may prove difficult, say the professors.

"Even if business people could agree on principles of moral philosophy, it would be difficult to develop a system to equitably establish accountability for the morality of packaging decisions," say the professors. The reason: Many people are involved in the packaging process and the work of each individual is often restricted to just one or two of the numerous tasks.

Nevertheless, say the professors, "There is little doubt that packaging issues have reached a level of public concern what will demand attention and challenge business as we enter the decade of the 1990s."

—Greg Erickson

PACKAGING's 100 GIANTS

Mergers, acquisitions among key food, beverage packagers concentrate materials purchasing power at the top

By Mark Spaulding
Senior Editor

A review of this year's PACKAGING 100 makes one thing clear: The big spenders have grown bigger and are spending more than ever. Their increased clout has changed rankings throughout the list and pushed 16 of last year's giants out of the picture.

These 100 largest consumers of packaging materials and containers collectively spent $3.1 billion more to package their products for the marketplace in 1989 than in 1988. This increased cost goes beyond simple volume growth and a general expansion of the domestic economy. It is a direct reflection of the mergers among key food and beverage packagers, concentrating materials purchasing power into fewer, larger companies.

Six of the packagers no longer listed were on the buyout side of major corporate mergers during 1989. Most notably, these included Kraft's acquisition by Philip Morris, General Cinema's sale of its bottling operations to PepsiCo, Holly Farms' purchase by Tyson Foods and Squibb's friendly merger with Bristol-Myers.

The other missing packagers fell from the ranks because of declining sales and resulting drops in packaging expenditures. Acquisitions by companies low on last year's list continue to increase the drop-off figure for the PACKAGING 100. The 100th-ranked packager's purchases this year grew by $8.5 million.

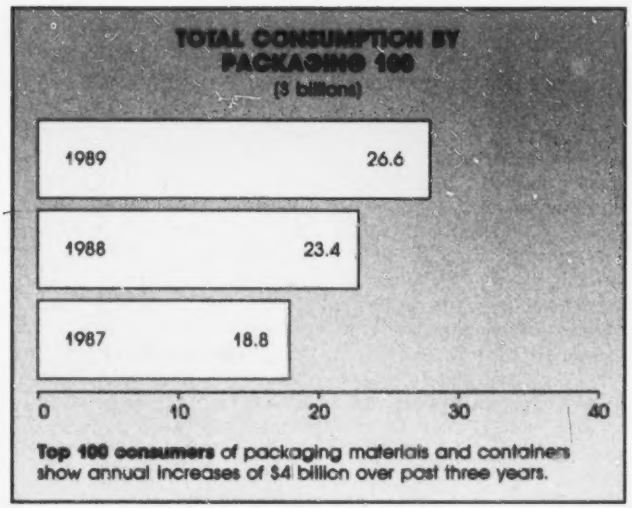
Our exclusive PACKAGING 100 provides a remarkable picture of the size and scope of the packaged-goods industry. Check these statistics:

The top 100 companies consumed more than $26.56 billion worth of packaging materials and finished containers during 1989. This represents a 13.5% increase in expenditures over last year's sum. The PACKAGING 100 now purchase roughly 37.5% of the total U.S. packaging industry's consumption, compared with 35.8% of the packaging products sold in the U.S. in 1988.

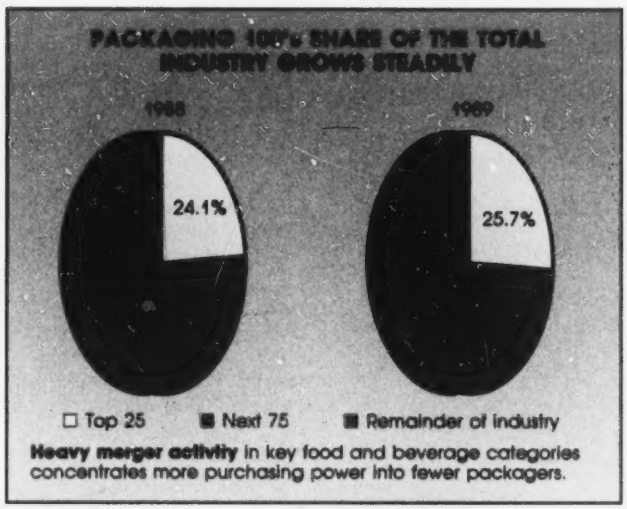
250 companies surveyed

We surveyed 250 companies to determine the amount spent on packaging materials and containers used to package any and all products sold in the U.S., including the value of self-manufactured containers. All types of packaging were considered: primary containers, labels, closures, shipping cases, pallets and stretch film.

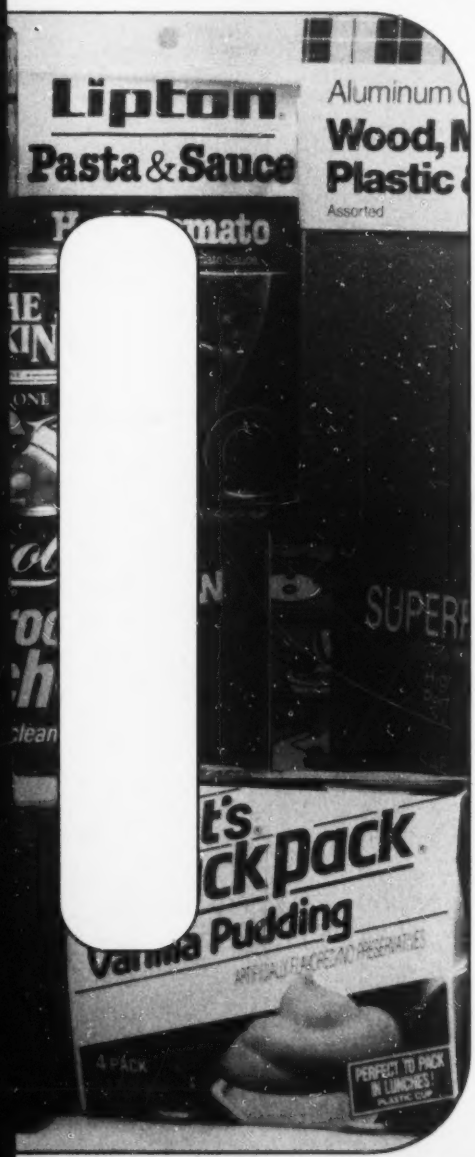
Supplemental sources such as U.S. Dept. of Commerce statistics, corporate annual reports and Cahners Economics rounded out our spreadsheet. Where necessary, we made estimates using ratios of packaging costs



Top 100 consumers of packaging materials and containers show annual increases of $4 billion over past three years.



Heavy merger activity in key food and beverage categories concentrates more purchasing power into fewer packagers.



Top 100 purchase 37.5% of the total packaging industry's 1989 consumption

relative to the value of product shipments. Changes in the cost of primary materials and other variables were factored in.

The huge purchasing power of the top 10 shows how food and beverage packagers dominate overall spending. More than $12.68 billion, or 47.7% of the PACKAGING 100's total, was purchased by these 10 companies alone. The top 25 packagers bought $18.22 billion, or 68.6% of the total; the top 50 companies purchased $23 billion worth of materials, 86.6% of the total. Clearly, the figures show how mergers are creating fewer, bigger players with more purchasing clout.

Energy from food, drink

The packaging-intensive prepared-foods industry continues to leave indelible marks on the PACKAGING 100. The top five food packagers alone purchased roughly $4.08 billion worth of materials and containers in 1989, or about 17% of the total food industry's consumption of packaging products.

The U.S. beverage industry has an even greater impact on the consumption of packaging. The top five beverage makers bought about $6.1 billion of bottles, cans, multipacks and shippers last year—fully 45% of the overall beverage industry's packaging purchases in 1989.

Ethical and OTC pharmaceutical packagers also account for a substantial portion of packaging consumption nationwide. The five largest drug makers purchased nearly $925 million of packaging products, about 14% of last year's total pharmaceutical, soap and toiletry consumption.

Gains and losses

The rise and fall in expenditure levels of many companies in the PACKAGING 100 tell an interesting story about the impact of mergers, divestitures and the general ups and downs in business for leading packagers.

Far and away the biggest decline in packaging expenditures was recorded by Beatrice Foods, with a drop of more than 40%. The company fell 23 places in the PACKAGING 100 rankings after its divestiture of the Fischer Nut Co. to Procter & Gamble and a persistent, sharp decline in overall sales.

Stroh Brewing Co. saw its packaging consumption fall slightly less than 10% last year on continued market-share loss for its flagship brands. RJR Nabisco spent about 18% less on packaging as its operations were tightened after the sale of Del Monte Foods, Del Monte's Tropical Fruit Div. and Butterfinger-Baby Ruth candy businesses.

On the rising side of packaging expenditures were companies whose rapid growth can be attributed to either strategic acquisitions, good business, or both. Foremost among these even-bigger packaging consumers is Unilever US, the new owner of Faberge cosmetics and personal-care products. Our calculation of its consumption rose 60.3% after we factored in this acquisition and accounted for good growth of its Lever Bros. household products and Thomas J. Lipton food products.

Tyson Foods' buyout of Holly Farms pushed consumption up a whopping 48.4% in 1989. Two other major leaps in packaging purchasing—Procter & Gamble at 41.7% and Phillip Morris at 29.6%—were also the result of substantial acquisitions. P&G took over the cosmetics packaging of Noxell Corp. and the bottling operations of Sundor Group. PM, of course, acquired Kraft, Inc., folding Kraft's and General Foods' packaging requirements together.

Just good business also had

an effect on higher packaging consumption by several of the top 100. PepsiCo's expenditures grew by 38.5% on very strong sales of its soft drinks and Frito-Lay snack foods. Packaging growth from new lines of potato-based snacks and cookie varieties made Keebler's purchases jump 26.7%.

Revving up the machines

Twelve companies reported a total of more than $209 million in capital expenditures for packaging machinery and equipment for this year's PACKAGING 100. While not a dramatically high figure overall, the total does contain significant amounts from individual packagers: $72 million spent by Sara Lee Corp., $46.2 million purchased by International Multifoods and $45 million bought by Mobil Oil.

An across-the-board estimate of packaging capital expenditures shows the Top 100 purchased roughly $1.3 billion worth of equipment last year for packaging lines nationwide. This is about 45% of all packaging machinery bought during 1989.

Many packagers implemented major line expansions in 1989 or are planning them for the coming year. For example, among the top 10 companies, Philip Morris' Miller Brewing unit will install larger draft-beer packaging facilities in California and New York, Anheuser-Busch broke ground for its 13th brewery in Cartersville, Ga., and Seagram USA will open a packaging line for Tropicana in New Jersey.

Other packaging-line expansions and improvements: Adolph Coors' $27 million expenditure to handle wider distribution of its Party Ball package and new Keystone beers; American Home Products' national introduction of Chef Boyardee Microwave Meals; DuPont's $2.5 million outlay to accommodate growth for its industrial chemicals; movement of a Schering-Plough filling line to Puerto Rico; and $1 million to handle Land O'Lakes' growing packaged-cheese business.

The impact of the PACKAGING 100 on the overall packaged-goods industry may grow even stronger in the coming years. If corporate mergers continue to build larger, single buyers of packaging materials and containers, the expenditures of these top 100 companies will likely hit 50% of all U.S. packaging consumption by 1998. ■

MAJOR 1989 PACKAGER MERGERS/SALES

ACQUISITIONS

Principal Company	Acquired Packager
Amer. Home Products	A.H. Robins
Black & Decker	Emhart
Bristol-Myers	Squibb
Cadbury-Schweppes	Orange Crush, Hires
Grand Metropolitan	Pillsbury
PepsiCo	General Cinema Bottling
Philip Morris	Kraft, Inc.
Procter & Gamble	Noxell, Sundor Group
SmithKline Beckman	Beecham Group
Tyson Foods	Holly Farms
Unilever US	Faberge, Calvin Klein

DIVESTITURES

Principal Company	Divested Packager
Avon Products	Parfums-Stern, Perry Ellis
Brown-Forman	California Cooler, Martell
RJR Nabisco	Del Monte Foods USA
	Butterfinger-Baby Ruth

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Outstanding	447
Above Average	448
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100

1 Philip Morris
New York, N.Y. — $2,568,450,000*

Consolidation of Kraft bumps PM into the No. 1 slot. Share of U.S. cigarette market hits 42%. Kraft General Foods introduces over 100 new products. Maxwell House share hits 34%. Jell-O desserts volume grows 3%. New Kraft sidedish and dinner lines prove successful. Total Oscar Mayer volume rises 6%. Miller Brewing launches Lowenbrau Light and non-alcohol Sharp's nationally. Expands packaged-draft facilities in Calif. and N.Y.

2 Anheuser-Busch
St. Louis, Mo. — $2,300,000,000

A-B modernizes St. Louis packaging plant, breaks ground for 13th brewery in Ga. Bud Light records double-digit growth. Non-alcohol O'Doul's, premium Anheuser Marzen and Bud Dry enter test markets. Metal Container Corp. supplies upwards of 4 billion aluminum cans to breweries. Campbell Taggart introduces series of oat-based products under its primary labels. Eagle Snacks opens new Calif. plant, launches Ranch, Nacho flavor tortilla chips.

3 PepsiCo
Purchase, N.Y. — $1,460,880,000*

Acquires 29 bottling franchises including $1.8 billion purchase from General Cinema. Half of all Pepsi-Cola domestic volume comes from company-owned bottlers. Introduces Diet Mountain Dew nationally. Begins testing H2Oh!, Pepsi A.M. and Mountain Dew Sport. Frito-Lay pound volume rises 7%, commands 13% of the U.S. snack-food market. Strong performers are Fritos, Ruffles and Doritos. Snack chips in canisters enter test markets.

4 Procter & Gamble
Cincinnati, Ohio — $1,385,500,000*

Laundry/cleaning product volumes achieve new highs led by national expansion of Tide with Bleach, StainGard Bounce and Spic and Span liquid. Major acquisitions include Fisher Nut business, Sundor Group fruit drinks and Noxell cosmetics. Record unit volumes in hair-care from Pert Plus and Pantene shampoos. Market-share increases for Jif peanut butter and Pringles salted snacks. Overall paper-products business improves on strength from Pamper, Puffs and Always.

5 Coca-Cola
Atlanta, Ga. — $1,161,720,000*

Gallon sales grew only 2.5% but domestic share hits 40%. Sugared Coke Classic volume grows 2%, but diet Coke continues double-digit share growth for one-calorie segment. Coke Foods sells coffee and bottled-water operations, begins national distribution of chilled Minute Maid in 96-ounce plastic bottles. Other significant product introductions include MM Premium Choice and aseptic Hi-C Ecto Cooler.

6 Coca-Cola Enterprises
Atlanta, Ga. — $1,086,932,000*

Exclusively a soft-drink bottler, buys more than 10 billion metal cans a year for Coke, Diet Coke, Sprite and resurrected Fresca brands. This is over one-fifth of all cans used in the soft-drink industry. Nearly 40 plants package 550 million cases annually. Installs 165-valve can filler in Atlanta plant. Its L.A. facility runs multiple lines at 6,000 cans per minute. Purchases four smaller regional bottlers in Alabama, Georgia and Texas. Buys corrugated on region basis.

7 RJR Nabisco
New York, N.Y. — $908,800,000*

Drops four slots after divestiture of Del Monte Foods canned goods, Tropical Fruit Div., Butterfinger-Baby Ruth and Pearson. Nabisco's eight core brands—including Chips Ahoy!, Ritz, Premium and Oreo—account for 75% of cookie/cracker volume. Success of Teddy Grahams pushes brand to No. 3. More single-serve cookie snack packaging planned for 1990. Plant expansions and modernizations include $55 million for Nabisco operations, $5.75 million for Planters LifeSavers.

8 Seagram USA
New York, N.Y. — $712,920,000*

Consolidates U.S. beverage operations into single unit. Juice and soft-drink sales leap 36% while sales of spirits and wine rise almost 6%. House of Seagram brands register gains against general decline in distilled spirits. Wine cooler sales continue to decline. Tropicana covers 23% of U.S. OJ market with 33% share of ready-to-serve category. New packaging facilities for Tropicana to open in N.J. and Calif.

9 Sara Lee
Chicago, Ill. — $575,000,000

Queen of frozen baked goods also markets wide range of meat products under Jimmy Dean, Mr. Turkey and Hillshire Farm labels. One-third of business concentrated in hosiery, knitwear, household and personal-care goods from Hanes, L'Eggs, Bali, Isotoner and Kiwi. Packaging expenditures show 65% for paperboard, 25% for plastic and 5% each for metal and glass. Capital expenditures for packaging machinery and equipment: $72 million.

10 Unilever US
Greenwich, Conn. — $519,820,000*

Reorganizes edible-fats business under Van den Bergh label. Launches Country Crock cheese in tubs. Acquires Gold Bond Ice Cream. Little growth in traditional markets for Lipton tea and soup. Ragu maintains lead among competitive pasta sauces. Successful relaunch of Wisk liquid in new bottle design. Acquires Faberge cosmetics. Consolidates all personal-care products under new Chesebrough-Pond's USA. Volume growth for Vaseline.

* Estimate

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11 Adolph Coors
Golden, Colo. — $489,675,000

National distribution of all Coors beers (except Ind.) continues. Coors Light ranks No. 4 nationally. Expands marketing of Party Ball. Introduces Keystone and Keystone Light beers. Packaging expenditures reported as 60% for metal cans and kegs, 22% for glass bottles, 15% for paperboard and 3% for plastic materials. Packaging-equipment capital expenditures at $27,045,000. Plans 6% increase in beer-packaging capacity for 1990.

12 Whitman
Chicago, Ill. — $428,612,000*

Pet Inc. major brands—Old El Paso, Progresso, Orval Kent, Van de Kamp's and Whitman's Chocolates—show 24% increase. Markets No. 1 products in eight food categories. Pepsi-Cola General increases sales by nearly 7% in 12 Midwest, Southeast states. Serves market of 25 million people and ships 132 million cases per year. Acquires Pepsi franchises in Wis., Mich.; Dr. Pepper franchises in Ky., W.V. and Va.

13 Brown-Forman
Louisville, Ky. — $415,500,000*

B-F drops slightly in ranking after divesting Martell to Seagram USA and California Cooler to Stroh Brewing. Wine and spirits sales climb a modest 2% with Jack Daniel's, Southern Comfort and other hard-liquour products showing growth. Domestic sales of California Cooler plunge 49% in FY89 along with 9% decline for Bolla wines. Icy Vodka begins national distribution. Premium-brand Hartmann luggage reports stable sales.

14 Kimberly-Clark
Dallas, Texas — $413,896,000*

Major volume growth for infant-care, feminine-care and household-tissue products. Introduces Huggies Pull-Ups training pants, more absorbent Depend briefs and softer, stronger Kleenex tissues. Reports 5% sales decline for newsprint and groundwood printing papers, but sales rise for premimum correspondence paper. Expansions at Neenah Paper facilities continue. Major capital expenditures for consumer-tissue operations.

15 Borden
New York, N.Y. — $400,000,000

Consolidates production/packaging into larger, more modern facilities while it closes smaller, older plants. Exits fluid-milk and cultured-products markets in Midwest, Southeast. Largest domestic pasta maker produces more than 1 billion lbs. per year. Introduces Creamette Microwave Elbows nationally; three more shapes to enter market this year. Sales of Krunchers! potato chips rocket 50%. Also markets 40 niche grocery brands.

16 Campbell Soup
Camden, N.J. — $381,000,000*

Unit volume for Campbell USA rises 6%. Ready-to-serve and dry soups show market-share gains; condensed-soup sales decline. V8 benefits from new packaging forms. Plans national distribution for microwave Souper Combos line. Acquires Marie's salad dressings, Durkee olives, Open Pit BBQ sauce. Pepperidge Farm sees high volume growth for American Collection cookies and 20-ounce gable-top carton for Goldfish crackers.

17 Eastman Kodak
Rochester, N.Y. — $380,000,000*

America's Storyteller consolidates film, photofinishing and batteries into Consumer Imaging Div. Eastman Chemical posts 13% sales gain on plastics, fibers. Sterling Drug divests non-core products. Solid sales increases for Carpuject pre-filled syringes. Introduces Therapy Bayer coated aspirin. Lehn & Fink debuts Glass Mates wipes, Lysol Bathroom Touch-Ups, Cling toilet-bowl cleaner in angle-necked bottles.

18 Stroh Brewing
Detroit, Mich. — $364,000,000*

On-again/off-again buyout of Stroh by Adolph Coors may be on-again. Continued market-share loss for nation's No. 3 brewer. Acquires California Cooler from Brown-Forman; consolidates brand into new unit with current White Mountain beer-cooler business. Begins packaging California Cooler at several plants in March. New packaging graphics/ad campaigns fail to stem market-share loss for flagship brands.

19 ConAgra
Omaha, Neb. — $350,000,000

Consumer frozen foods show healthy gains led by Banquet products. Principal brands—Armour Classics, Morton, Patio, Chun King, Healthy Choice—market more than 300 different packaged items. Armour Meats up substantially. Consolidates foodservice businesses. O'Donnell-Usen packages over 100 frozen seafood products. Reports expenditure breakdown as 70% for paperboard, 25% for plastic, 3% for metal and 2% for glass.

20 Avon Products
New York, N.Y. — $338,150,000

Divests Parfums Sterns and Oscar de la Renta, Perry Ellis cosmetics and fragrances. Reports general upgrades to wide range of packaging lines. Expenditure breakdown shows 25% in glass containers, 20% in plastic tubes and bottles, 20% in injection-molded products such as closures and 15% in paperboard packaging. Strong performers include Avon Color cosmetics and nail-care, BioAdvance, Moisture Therapy and Giorgio's Red perfume.

* Estimate

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Rank ('89)	Company Profile	Packaging Expenditures
21 (21)	**Scott Paper** Philadelphia, Pa. New personal-care, environmental-cleaning and health-care products require greater packaging expenditures. Strong performance from Baby Fresh wipes, Cottonelle, Scotties, ScotTowels, Viva and ProCare soap-dispensing systems. Overall U.S. sales volume up 4%.	$325,745,000*
22 (22)	**G. Heileman Brewing** LaCrosse, Wis. Maintains rank in Top 100 despite declining market share among top brewers. "God's Country" brewer packages Old Style and several smaller brands about equally in metal cans and glass bottles. Expenditures average $100 million for those materials, about $60 million for paperboard.	$325,000,000
23 (27)	**American Home Products** New York, N.Y. Acquires A.H. Robins. Launches Chef Boyardee Microwave Meals nationally. Dramatic sales increase for Olive Oil Pam. Packaging expenditures: 50% for metal containers, 21% each for paperboard and plastic, 4% for glass. Packaging capital expenditures: $5 million.	$319,000,000
24 (25)	**General Mills** Minneapolis, Minn. Growth in existing businesses account for majority of increase. Paperboard makes up bulk of purchases at 75%; plastic at 25%. Pop Secret an especially strong performer. New products less than 5 years old make up 29% of consumer-foods volume growth.	$315,000,000
25 (23)	**Nestle Foods** Purchase, N.Y. Buys Butterfinger-Baby Ruth, Pearson candies from RJR. Also acquires Culinary Brands, maker of sous vide prepared meals. Introduces new Right Course low-fat, low-salt, low-cholesterol entrees under Stouffer's label. Share of U.S. confectionery market grows to about 12%.	$295,626,000*
26 (24)	**Grand Metropolitan** Minneapolis, Minn. Pillsbury's merger into Grand Met only strengthens brands. Markets No. 1 products in several categories: refrigerated dough, canned/frozen vegetables and frozen pizza. Launches largest pet-food introduction with canned/dry Alpo cat food endorsed by spokescat Garfield.	$295,570,000*
27 (28)	**Clorox** Oakland, Calif. Continues successful launch of companion products: Lemon Fresh Clorox bleach, Hidden Valley Italian Style, Kingsford charcoal lighter. Expands distribution of Clorox detergent to 45% of U.S. Completes national distribution of Soft Scrub With Bleach cleanser and BBQ Bag briquets.	$295,000,000*
28 (—)	**Cadburry-Schweppes** Stamford, Conn. Acquires Orange Crush, Hires Root Beer and Sun-drop Citrus sodas from P&G. Market coverage for these new brands hits only 30% of U.S. population. Crush volume down to 17 million cases. Continuing strong performance from flagship Canada Dry products.	$280,000,000*
29 (30)	**Revlon Group** New York, N.Y. Restages entire line of Flex shampoos and conditioners. Introduces Fortifyl Complex hair-care fluids in complex, ampule-like vials. Expands distribution of Tandem Pak bottles for Flex and Jean Nate products. Expenditures grow in line with overall sales and volume increases.	$266,434,000*
30 (26)	**H.J. Heinz** Pittsburgh, Pa. Adding a handle to 64-ounce plastic ketchup bottle boosts sales for the package 47%. Weight Watchers frozen desserts now command 19% market share. Acquires Portion Pac, maker of single-serve condiments. Ore-Ida makes improvements to packaging operations in Ore., Idaho and Wis.	$240,000,000

Rank ('89)	Company Profile	Packaging Expenditures
31 (32)	**Quaker Oats** Chicago, Ill. Market leaders—Quaker Oatmeal, Gatorade, Aunt Jemima, Celeste pizza, Rice-A-Roni and Gravy Train—drive up grocery-product sales 9%. Strong growth for juvenile products pushes Fisher-Price sales up 3%. Acquires Pritikin dietetic-food brand. Sells Ghirardelli chocolate.	$238,710,000*
32 (33)	**Ocean Spray Cranberries** Lakeville/Middleboro, Mass. Sales and volume skyrocket nearly $100 million on popularity of Mauna Lai guava drink, cranberry juices, shelf-stable concentrates in aseptic containers and Cran-Fruit plastic-packed sauces. Overall capital expenditures: $35 million.	$230,620,000*
33 (—)	**S.C. Johnson & Son** Racine, Wis. Launches Raid Max in high-tech aerosol cans and fumigators. Glade Potpourri Spray in 3 scents is first reformulated Glade product since 1961. Repositions Soft Sense Shave Gel in pastel containers. Institutional cleaners and polishes maintain market share.	$216,000,000*
34 (35)	**Johnson & Johnson** New Brunswick, N.J. Merges Baby Products, Health Care and Dental Care groups into Consumer Products unit. Doubles production capacity for Acuvue disposable contact-lenses. Package redesign helps launch Children's Tylenol Cold tablets. Begins marketing drawstring packaging for StayFree products.	$191,000,000*
35 (37)	**E.I. DuPont de Nemours** Wilmington, Del. Industrial chemicals volume rises 9%. Polymers volume remains unchanged. Packaging expenditures reported as 59% for paperboard and corrugated containers, 31% for metal and 2% for plastic materials. Spent $2.5 million on packaging machinery and equipment.	$185,000,000
36 (36)	**Dean Foods** Franklin Park, Ill. Acquires Mayfield Dairy Farms, Bellingham Frozen Foods. Reports packaging expenditures of $90 million for paperboard, $45 million for plastic, $27 million for metal, $18 million for glass. Introduces new non-fat ice cream, frozen yogurt and light cultured items.	$180,000,000
37 (40)	**Dow Chemical** Midland, Mich. Chemical volumes rise 4%. Merges Home Care, Food Care divs. into Household Products unit. Buys $50.8 million of paperboard, $49.7 million of plastic materials, $32.7 million of metal containers. Remainder of expenditures (about $46 million) for pallets, closures, labels. etc.	$180,000,000
38 (43)	**Geo. A. Hormel & Co.** Austin, Minn. Completes national roll-out of Top Shelf entrees and Micro Cup single-serving meals. New Chicken and Turkey by George refrigerated products expand market coverage. Launches Kid's Kitchen shelf-stable entrees in microwave trays. Foodservice products maintain record volumes.	$166,233,000
39 (—)	**American Cyanamid** Wayne, N.J. Medical Group grows 9% on gains from Rx drugs, medical devices. Shulton Group advances 2%. Introduces water-based Combat insect fogger and Pine-Sol Spruce-Ups cleaning wipes. Disappointing sales for Thrive men's hair-care products. Plans test of TapGuard faucet filters.	$163,100,000*
40 (29)	**CPC International** Englewood Cliffs, N.J. Best Foods volumes show 1% increase. Acquires JJ Flats flatbread business to expand Baking Group. Repositions Knorr desserts with upscale package redesign. Markets new 4-lb. Skippy peanut-butter jar. Volumes for Sahara pita and Arnold light breads rise at double-digit pace.	$163,000,000*

* Estimate

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Rank ('89)	Company Profile	Packaging Expenditures
41 (52)	**Bristol-Myers Squibb** New York, N.Y. Merger of 2 packaging giants boosts ranking. Leading marketer of chemotherapy drugs develops innovative, protective packaging. Major consumer brands include Theragran vitamins, Bufferin and Excedrin, Ban, Miss Clairol, Drano, Vanish, Endust, Windex and Renuzit.	$161,720,000*
42 (—)	**Warner-Lambert** Morris Plains, N.J. Parke-Davis Rx drugs business grows 9% on strength of cardiovascular product line. OTC health-care products grow 6%. Sales of Listerine reach $200 million. Major consumer brands include Benylin cough syrup, Lubriderm lotion, Trident, Dentyne and Certs mints.	$161,546,000*
43 (44)	**Hershey Foods** Hershey, Pa. Acquires Ronzoni from Kraft General Foods. Introduces Perfection microwave pasta. Adds major packaging lines in Neb., Calif., Kan. Hershey Chocolate Bar Flavor Puddings launched in East Coast markets. Hershey Chocolate Milk in aseptic packaging goes national this year.	$160,972,000*
44 (41)	**General Motors** Detroit, Mich. Chevrolet's Geo small-car line finds consumer acceptance. Automobile-manufacturing costs and parts sales push spending up 2.5%. Introduces minivans for Chevrolet, Oldsmobile and Pontiac. Most of purchases in paperboard shipping containers and retail cartons: about $120 million.	$160,000,000*
45 (46)	**Ralston-Purina** St. Louis, Mo. Category leader Purina Dog Chow posts large volume increase. Launches Happy Cat cat food in resealable, paper cartons. New 4- and 8-packs of Energizer batteries debut. National distribution begins for Nintendo, Barbie and Batman breakfast cereals targeted at kids.	$154,450,000*
46 (56)	**Colgate-Palmolive** New York, N.Y. Seventh straight year of volume growth, up 4%. Begins marketing kids' decorator toothpaste pumps to kids for Colgate Junior. Acquires Scherer Laboratories' gel products for dentists. Body Care Group introduces 60 new products. Breaks ground for Hills Pet Products facility in Ind.	$146,000,000*
47 (47)	**Castle & Cooke** Los Angeles, Calif. Leading distributor of fresh fruits and vegetables markets expanding line of fruit-based packaged foods, nuts. Upgrades facilities to package Dole sliced vegetables. Launches first non-pineapple-based fruit drink—Pure & Light—nationally. New date plant on-line.	$145,280,000*
48 (45)	**Kellogg** Battle Creek, Mich. Reports drop in U.S. market share for some leading Kellogg cereals. Convenience foods—Eggo waffles, Mrs. Smith's pies—have over 50% market share. Opens automated line in Ill. for frozen soups. Adds production capacity at convenience-foods plants in Tenn. and Pa.	$142,953,000*
49 (48)	**Greyhound Dial** Phoenix, Ariz. Liquid Dial soap dispensers and Lunch Bucket shelf-stable entrees enter national distribution. Introduces Mountain Fresh Dial bar soap and Purex Liquid detergent in new 2-gallon bag-in-box packaging. High-speed fillers added at Memphis plant to handle Liquid Dial demand.	$137,000,000
50 (—)	**Dr Pepper/Seven-Up** Dallas, Texas Uses new package graphics to relaunch reformulated Diet 7UP, Cherry 7UP. State-of-the-art facility in St. Louis packages over 130 soft drink brands. Premier Beverages subsidiary markets Welch's Grape Soda. Buys IBC Root Beer sold in classic brown bottles.	$132,678,000*
51 (49)	**M&M/Mars** Hackettstown, N.J. Secretive candy giant goes on marketing blitz. Revamps labels to emphasis Mars name. Launches oval paperboard canisters for M&Ms. Kal Kan pet food div. extends single-serve, metal-tray packaging to Whiskas cat food line. Kudos snacks, Dove ice cream fight for shelf space.	$130,000,000*
52 (54)	**Keebler** Elmhurst, Ill. Reports packaging expenditures at 53.4% plastic, 40.1% paperboard, 4.9% metal. Of $70 million plastic total, spends $47.2 million on plastic films, $32.4 million on laminations, $20.4 on paper-based flexibles. Continues move into salty snacks. New cookie types debut.	$129,935,000
53 (50)	**3M Co.** St. Paul, Minn. 45,000 products involve coating one material onto another. Printed Post-it notes now in 350 kinds. Big consumer products include Scotchgard protector, Scotch Magic tape, Buf-Puf facial sponges, antiseptics and medicated pads. Launches Safest Stripper paint, varnish removers.	$129,513,000*
54 (64)	**Tyson Foods** Springdale, Ark. Tough acquisition of Holly Farms' Quick-to-Fix, Henry House and Weaver divisions pushes Tyson up 10 notches. Reports spending $73.5 million on paperboard, $45.8 million on plastics, $1.2 million on metal. Packaging capital spending listed at $3 million.	$120,500,000
55 (55)	**Iowa Beef Processors** Dakota City, Neb. Despite decline in cattle supplies, IBP maintains market share. Buys about $80 million in paperboard shipping cases for boxed beef and pork products. Breaks ground for new beef-processing plant in Neb. Opens specialty plant in Iowa for further-processed pork cuts.	$120,200,000

SELECTED 1989 CAPITAL EXPENDITURES FOR PACKAGING MACHINERY & EQUIPMENT

Company	Amount
Seagram USA	$260,000,000*
Kimberly-Clark Corp.	$89,000,000*
Sara Lee Corp.	$72,000,000
ConAgra, Inc.	$56,000,000*
Mobil Oil Corp.	$45,000,000
Adolph Coors Co.	$27,045,000
Schering-Plough Corp.	$3,280,000
Tyson Foods Corp.	$3,000,000
E.I. DuPont de Nemours Co.	$2,500,000

*PACKAGING estimate

* Estimate

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Rank ('89)	Company Profile	Packaging Expenditures
56 (54)	**Ford Motor** Dearborn, Mich. No. 2 automaker sees slight decline in U.S. sales. Bulk of packaging purchases in paperboard and plastic, mainly for work-in-process shipping containers, retail cartons for Motorcraft aftermarket products. New cars on the road: Mercury Tracer, four-door Explorer utility vehicle.	$119,875,000*
57 (34)	**Beatrice Foods** Chicago, Ill. Divestiture of Fisher Nut, dramatic sales decrease drop Beatrice 23 slots. More Hunt-Wesson edible-oil products move into recyclable plastic bottles. Swift-Eckrich continues microwave packaging drive for Brown 'n Serve sausage and MAP/CAP breakfast-sandwich products.	116,000,000*

LEADING BEVERAGE PACKAGERS

Rank	Company (Divisions) *Products*
1	**Anheuser-Busch Companies, Inc.** *Budweiser, Bud Light, Michelob, Michelob Dry, Busch, Natural Light, Anheuser Marzen*
2	**PepsiCo, Inc.** *Pepsi-Cola, Diet Pepsi, Mountain Dew, H$_2$Oh!, Pepsi A.M., Mountain Dew Sport*
3	**Coca-Cola Company** (Coca-Cola USA, Coca-Cola Foods) *Minute Maid, Hi-C*
4	**Coca-Cola Enterprises, Inc.** *Coca-Cola Classic, Diet Coke, Sprite, Diet Sprite, Fresca*
5	**Philip Morris Companies, Inc.** *Miller, Lite, High Life, Genuine Draft, Lowenbrau, Leinenkugel's, Sharp's*

58 (57)	**International Business Machines** Armonk, N.Y. A reversal of 1989's decline in domestic sales bumps up packaging expenditures by 6%. Success of Applications Business Systems' AS/400 Series continues. Paperboard, plastic film, cushioning purchases predominate. Emphasizes desktop-publishing products.	$113,656,000*
59 (58)	**Exxon** New York, N.Y. World's largest oil company's big emphasis is on chemical packaging. Most of expenditures in palletized bulk-shipping containers, metal and plastic drums for Polymers Group products—olefin resins, adhesives, polypropylenes and specialty resins for multilayer films.	$106,537,000*
60 (53)	**American Brands** Old Greenwich, Conn. Reports market-share gain for American Tobacco coupled with lower U.S. volume for Jim Beam spirits. Launches Malibu Ultra 100s and 3 flavor extensions for DeKuyper Schnapps nationally. Other major businesses include ACCO office products, Masterlock, Aristokraft cabinetry.	$104,500,000*
61 (61)	**Pfizer** New York, N.Y. Packaging-intensive health-care and consumer goods make up 75% of product volume. Popular brands include Visine Extra, Ben-Gay Warming Ice, Barbasol shave cream, Unisom sleep-aid, Coty fragrances and Desitin ointment. Strong sales growth for newly acquired Plax dental rinse.	$93,782,000*
62 (59)	**PPG Industries** Pittsburgh, Pa. Coatings, chemicals report strong volume sales. Acquires Olympic stains and Lucite paints. Expands capacity for car windshields, breaks ground for float-glass facility in Southeast. Packages chlorine, caustic soda, flame-retardant concentrates for industrial market.	$91,500,000
63 (60)	**General Electric** Fairfield, Conn. More economical sourcing results in similar packaging expenditures despite product-volume increases. Major-appliance concentration shows in purchases: about 90% paperboard, 10% plastic. New "White on White" appliance line proves popular with consumers.	$90,000,000
64 (62)	**Schering-Plough** Madison, N.J. Reports expenditures of $50 million for plastics, $12 million for metal, $9 million for paperboard and corrugated, $6 million for glass. Capital expenditures for packaging machinery: $3.28 million. Major expansion includes moving filling line to Puerto Rico.	$86,000,000
65 (62)	**Mobil Oil** New York, N.Y. Engine lubricants and films represent major packaged products. Specific purchases include paperboard, $41 million; plastic, $24.5 million; metal containers, $16.5 million. Packaging capital expenditures: $45 million. New film plant being built in Ga.	$82,000,000
66 (66)	**Tenneco** Houston, Texas Merges aluminum-, plastic-packaging businesses into PCA/Ekco Kaiser, builds market share in high-margin specialty products. Tenneco Automotive reports volume growth for Walker mufflers, Monroe shock absorbers. Sells oil/gas divisions. Forms Tenneco Automotive Brake business.	$81,300,000*
67 (63)	**Texaco** White Plains, N.Y. Slight decline in U.S. sales drops company a few notches in rank. No. 3 ranked Havoline motor oil repackaged with pull-tab, innerseal liner on plastic quart bottles. Forms Star Enterprises subsidiary for East and Gulf Coast States. Continues emphasis on specialty chemicals.	$80,100,000*
68 (65)	**United Brands** Cincinnati, Ohio Expenditures climb roughly 10%. Adds Chiquita brand to melons, pineapples and grapefruit. Introduces fruit-based frozen desserts, pies and Tropical Squeeze juice blend in gable-top cartons and frozen concentrate. Slight volume increases for Morrell, Rath, Tobin's meats.	$79,371,000*
69 (—)	**Sunkist Growers** Sherman Oaks, Calif. Buys roughly 56 million corrugated cases for fresh fruit and fruit products. Ships about 38 million cartons of oranges, 12 million of lemons, 5 million of grapefruit and 1 million of tangerines. Fresh-fruit packaging spending expected to climb 10% on fewer juice-fruit shipments.	$74,500,000*
70 (68)	**Land O'Lakes** Arden Hills, Minn. Growth in the cheese market, decline in the butter market combine to maintain expenditures at similar levels. Specific purchases: paperboard, $35 million; plastic, $21 million; and metal, $14 million. Capital expenditur for packaging machinery and equipment: $1 million.	$70,000,000

* Estimate

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Rank ('89)	Company Profile	Packaging Expenditures
71 (70)	**Miles Laboratories** Elkhart, Ind. Ranks in top 10 U.S. marketers of OTC drugs. Alka-Seltzer Plus cold contributes 20% of brand's total sales. Holds leadership in children's vitamins with Flintstones and Bugs Bunny brands. Repositions S.O.S. soap pads with new package graphics. Emphasizes specialty cleaners.	$69,000,000*
72 (69)	**Monsanto** St. Louis, Mo. Packaging-intensive drugs, food and personal-care products make up 35% of overall volume. Packaging expenditures climb 7%. Sells pain-reliever, electronic-materials businesses. Sales of fat substitute Simplesse expected to take off this year.	$68,000,000*
73 (72)	**Gerber Products** Fremont, Mich. Junior food-sales volume rises over 15% on strength of repositioned 6-ounce containers. Multilayer plastic bottles for juice boost sales 24%. Launches single-serve cereal cups. Hankscraft Div. rolls out microwave baby-feeding dishware. Apparel Group sales rise 3%.	$65,000,000*
74 (75)	**Morton International** Chicago, Ill. Adds automobile airbags to specialty chemicals and salt businesses. Volumes for thermoplastic polyurethanes and ice-control products increase on strong demand. Sales for System Saver water-conditioning salts rise 15%. Introduces water-based sealants, adhesives.	$64,500,000*
75 (74)	**Baxter Healthcare** Deerfield, Ill. Broad range of diagnostic, hospital, pharmacy and Rx drugs pushes packaging expenditures up 8%. Consolidated purchasing helps cut costs of many items. Half of purchases in paperboard, 25% in plastic. Provides wide range of private-label hospital supplies.	$61,560,000*
76 (71)	**Chrysler** Highland Park, Mich. Sells Chrysler Technologies, Gulfstream Aerospace to renew commitment to car industry. Rolls 2-millionth minivan off line. Breaks ground for new assembly plant in Detroit. Continued strong sales for Mopar parts mean increased paperboard-container purchases.	$61,173,000*
77 (76)	**Merck** Rahway, N.J. Ethical-drug packager reports 18 products represent at least $2 billion in annual sales. Major new products include Losec ulcer medication and PedvaxHIB children's flu vaccine. Forms consumer healthcare group with Johnson & Johnson to better market Mylanta antacid.	$61,000,000*
78 (—)	**Universal Foods** Milwaukee, Wis. Major food-processing and foodservice supplier markets cheese, frozen products, flavors, colors and dehydrated foods. New products introduced since 1988 generate $55 million in sales. Plant modifications expand frozen potato capacity in Idaho, cheese production in Wash.	$60,300,000*
79 (78)	**Shell Oil** Houston, Texas Expenditures include plastic, $21 million; paperboard, $12 million; metal, $12 million. No major packaging-line expansions announced. Record volumes for commodity chemical products such as olefin feedstocks. Continued demand for Truck Guard motor oil for vans and RVs.	$60,000,000
80 (84)	**SmithKline Beecham** Philadelphia, Pa. Merges with British drug-giant Beecham Group. Aqua-Fresh toothpaste commands 12% U.S. market share. Launches line extensions of Sucrets lozenges, Tums antacid and Geritol vitamin supplement. Cough and cold remedies grow by 14% on strength of Contac and N'Ice.	$54,400,000*
81 (—)	**Stanley Works** New Britain, Conn. Acquires tape maker Rabone-Chesterman, Parker Group fasteners. Hardware Div. introduces Steel Plank Closet Organizer. Strong use of carded-blister packaging for hand tools. Breaks ground for 176,000 sq. ft. consumer hardware plant in Richmond, Va.	$54,250,000*
82 (—)	**Black & Decker** Towson, Md. Moves into Top 100 after acquiring Emhart Corp. Strengthens share in DIY market for hardware, home-improvement products. Launches steady flow of small household appliances; these sales increase 10%. Double-digit growth for power tools, faucets, home lighting.	$54,000,000*

LEADING PHARMACEUTICAL PACKAGERS

Rank	Company (Divisions)
1	**Bristol-Myers Squibb Co.** (Pharmaceuticals, Consumer Products, Medical Devices, Nutritionals)
2	**Johnson & Johnson** (Johnson & Johnson, McNeil Pharmaceutical, McNeil Consumer Products, Hospital Services, Ortho Pharmaceutical, Professional Group)
3	**American Home Products Corp.** (Wyeth-Ayerst, A.H. Robins Co., Sherwood Medical, Fort Dodge Laboratories, Whitehall)
4	**Eastman Kodak Co.** (Sterling Drug, Health Sciences, Clinical Products, Glenbrook Laboratories, Winthrop Pharmaceuticals, Phillips Medical Systems)

Rank ('89)	Company Profile	Packaging Expenditures
83 (83)	**Alberto Culver** Melrose Park, Ill. Household and grocery products grow by 9%. Record-high volumes for Toiletries Div. also increase at 9% pace. Major gains by Bold Hold styling products, FDS deodorant, Alberto VP5 Hot Oil and Alberto VO5 shampoos/conditioners. Introduces cheese-flavor Molly McButter Sprinkles.	$52,781,000*
84 (77)	**Amoco** Chicago, Ill. Implements use of post-consumer HDPE to make recycled plastic containers for motor oil. Specific packaging purchases break down as 50% for plastic, 48% for paperboard, 2% for metal. Capital expenditures for packaging machinery reported at $1 million.	$50,000,000
85 (—)	**Riceland Foods** Stuttgart, Ark. Expands production of rice cakes, private-label breads and value-added rice products. Expenditures include paperboard, $45 million; plastics, $5 million. Capital expenditures include $1 million to expand vacuum-packed Rice Cube line in flexible film.	$50,000,000

* Estimate

100

Rank ('89)	Company Profile	Packaging Expenditures
86 (79)	**Whirlpool** Benton Harbor, Mich. Packaging expenditures decline slightly on 6% decrease in U.S. volume of refrigerator and freezer products. Acquires Roper brand name, rolls out full line of Roper products at mid-year. Reduces packaging components for laundry-product lines by 41%, cuts costs for these by 14%.	$49,750,000*
87 (—)	**Ecolab** St. Paul, Minn. Marketer of premium cleaning and sanitizing products for hotels, foodservice and healthcare facilities develops custom-label business for Janitorial Group. Klenzade reports 10% growth for food and beverage-processing sector. Textile Care Div. reports similar volume growth.	$48,661,000*
88 (—)	**Wm. Wrigley Jr.** Chicago, Ill. Extra Sugarfree Gum becomes No. 1 brand in U.S. Rapid growth for new Winter Fresh flavor. Discontinues 7-stick package in favor of price-marked, 5-stick packaging. Candymaker Amurol Products acquires hard-candy and mint operations of Reed Co.	$48,518,000*
89 (87)	**Olin** Stamford, Conn. Sells photographics business to Fuji, cutting Olin-Hunt packaging subsidiary volume. Expands lines with $150,000 capital expenditures on palletizers, bottling equipment. Purchases include 45.2% for plastic, 26.7% for paperboard, 26.4% for metal, 1.7% for glass.	$47,365,800
90 (92)	**Interstate Bakeries** Kansas City, Mo. Acquires Merita/Cotton Bakeries to mark first billion-dollar sales year. Reports notably higher packaging costs as result of increased volume and cost of packaging materials themselves. Moves cake production from Charlotte, N.C., to efficient Ga. plant.	$45,318,000*

LEADING FOOD PACKAGERS

Rank	Company (Divisions)
1	**Philip Morris Companies, Inc.** (General Foods USA, Kraft USA, Oscar Mayer Foods, Kraft General Foods Commercial Products)
2	**RJR Nabisco, Inc.** (Nabisco Brands, Planters Lifesavers)
3	**ConAgra, Inc.** (Agri-Products, Prepared Foods, ConAgra Poultry, Armour Foods, ConAgra Foodservice, Specialty Products)
4	**Sara Lee Corp.** (Sara Lee, Jimmy Dean, Hillshire Farm, Bil Mar Foods, Bryan Foods, Hygrade)
5	**Campbell Soup Co.** (Campbell USA, Grocery Group, Fresh Produce Group, Vlasic Foods, Mrs. Paul's, Pepperidge Farm, Foodservice Business Unit)

Rank ('89)	Company Profile	Packaging Expenditures
91 (86)	**Abbott Laboratories** Abbott Park, Ill. Expands capacity for pediatric nutritonal products at Ross Labs in Ohio. National distribution for New Direction obesity-control products. Consumer brands gaining market share: Selsun Blue shampoos, Murine and Clear Eyes eyedrops and Faultless hot-water bottles.	$43,856,000*
92 (—)	**Thorn Apply Valley** Southfield, Mich. Acquires Tri-Miller Packing, a full-line pork processor. Divests Wayne By-Products. Launches Foodservice Sales and Military Sales Divs. Developing beef, turkey and other deli items to offset declining consumer demand for semi-boneless and boneless hams.	$43,509,000*
93 (—)	**Carter-Wallace** New York, N.Y. Divests Sea & Ski sun-care products. Modernizes plant to produce Arrid Wide Oval Solid deodorants. Consumer Products Group grows 4%. Lambert Kay reports strong demand for pet health and grooming items. Launches line of flea and tick collars packaged in clear blisters.	$41,200,000*
94 (—)	**Maytag** Newton, Iowa Introduces first Maytag refrigerator to become full-line appliance manufacturer. Launches line of Magic Chef, Admiral, Norge and private-label washers and dryers. Expenditures show major appliance business: 79% for paperboard, 16% for wood pallets, 5% for plastic.	$40,775,115
95 (98)	**Gillette** Boston, Mass. Introduces Sensor shaving system. Growing popularity for Right Guard Sport and Soft & Dri deodorants. Low-priced pens post sizable volume gains led by Paper Mate Flexigrip refillables. Stable domestic sales of Braun small appliances. Market share grows for Oral-B products.	$40,500,000*
96 (91)	**Masco** Taylor, Mich. Largest faucet maker markets Delta, Peerless, American Bath brands to remodelers and DIY markets. Merillat cabinets report 20% growth. No. 2 furniture maker leads in premium-priced wood and upholstered markets. Specialties include Baldwin Brass giftware.	$40,000,000
97 (—)	**Sun-Diamond Growers of California** Pleasanton, Calif. Diamond Walnut operates high-tech walnut-processing plant in Stockton. Sun-Maid markets 30% of Calif. raisin crop, sees demand for 24-oz. paperboard-canister package. Sunsweet Growers installs new FFS equipment and electronic weighing systems to reduce manpower.	$39,850,000*
98 (94)	**Corning Glass Works** Corning, N.Y. Consolidates Revere Ware line into consumer-housewares operations. Debuts include Visions non-stick cookware, beige Corning Ware, Thermique thermal servers, Silver Crown stemware and Serengeti sunglasses. Major expenditures: about 45% paperboard, 35% plastic.	$39,804,000*
99 (—)	**Helene Curtis Industries** Chicago, Ill. Restages low-priced Sauve hair-care products through new formulas and revamped packaging. Professional Div. markets Attractions shampoo in gallon bottles, Gel Mist in metric containers. Launches Suave antiperspirants, Salon Selectives shampoos and conditioners.	$39,750,000*
100 (90)	**Goodyear Tire & Rubber** Kalamazoo, Mich. Demand increases for specialty automotive polymers. Eagle TA radial tire proves popular with Big 3 automakers. Expands polyester-resin plant. Acquires Tenn. producer of industrial-packaging films. Paperboard and plastic account for roughly 70% of overall packaging expenditures.	$39,525,000*

* Estimate

15 Companies To Watch

A&W Brands
White Plains, N.Y.
$35,500,000*

Soft-drink concentrate maker sees growth above industry rates for stable of regional brands. A&W Root Beer up 2% in competitive market. Squirt citrus soda up 19%. Third consecutive year of double-digit growth for Vernors. Volume up 10% for Country Time Lemonade. Launches A&W Cream Coda.

Church & Dwight
Princeton, N.J.
$22,000,000*

Successfully markets Cluster-Pack of three 1-lb. boxes of Arm & Hammer Baking Soda. Introduces Pet Fresh carpet deodorizer. Dental Care toothpastes and powders enter national distribution. Unit volume for A&H Heavy Duty Detergent remains stable despite price increase due to rising packaging costs.

Emerson Electric
St. Louis, Mo.
$32,700,000*

Slight decline in consumer products—power tools, shop vacuums, garbage disposers—offset by better gains in commercial and industrial products—motors, drives, valves, compressors, electronic control systems. Acquires solenoid-maker Joucomatic to serve packaging, chemical industries.

Hasbro
Pawtucket, R.I.
$22,450,000

Largest domestic toymaker markets Milton Bradley games, Playskool juvenile products, G.I. Joe, My Little Pony and Transformers. Extensive product line requires 350 to 450 new packages created each year. Acquires Coleco outdoor furniture and ride-on toy lines, Sesame Street and Disney licenses.

International Multifoods
Minneapolis, Minn.
$24,000,000

Leading supplier to foodservice market expands packaging lines with improvements to packing and freezing operations at Riverside, Calif., plant. Reports $46.2 million in packaging equipment capital expenditures. Purchases breakdown shows 70% for paperboard, 30% for plastic.

Eli Lilly
Indianapolis, Ind.
$26,000,000*

Mergers plant-science businesses with Dow Chemical to form DowElanco. Acquires DVI, medical-device maker of coronary vascular products. Largest category of pharmaceuticals are anti-infectives Ceclor, Keflex, Vanocin and HCI. Diabetic-care products include Humulin and Iletin artifical insulins.

Mary Kay Cosmetics
Dallas, Texas
$32,838,000

Implements significant packaging redesign for all Basic Skin Care products. Automates blusher-refill assembly process. Purchases $1.1 million in packaging equipment and machinery. Reports packaging expenditures as 65.7% for plastic, 15.1% for paperboard, 13.2% for glass, 6% for metal.

Mattel
El Segundo, Calif.
$18,000,000*

Overall volume increases 25%. Mattel/Disney Infant and Preschool line markets 67 products including new Ride-On Mickey and Action Blocks. Overwhelming success for Nintendo Power Glove line extensions: Super Software and Turbo Sport Edition. Large-doll products climb to $100 million sales.

McCormick & Co.
Hunt Valley, Md.
$33,976,000*

Consolidates McCormick/Schilling operations, opens new plants for Golden West Foods and Tubed Products. Repackages entire core spice line in plastic bottles. Strong growth for popular Gourmet Spices clear glass containers. Relaunches Bag 'n Season cooking bags and seasoning blends.

Phillips Petroleum
Bartlesville, Okla.
$4,600,000

Increases capacity for K-Resin copolymer, Marlex polyethylene. Propylene volumes drop while specialty chemical volumes rise. Launches Crystalor polymethylpentene to cookware, plastic-bottle markets. Breakdown of purchases shows 60% for paperboard, 31% for plastic and 9% for metal.

Rohm and Haas
Philadelphia, Pa.
$33,460,000

Expands lines to package Kamax acrylic resins, Paraloid HT-570 modifiers in Louisville and Plexiglas in Bristol, Pa. Spends $880,000 on capital equipment for packaging. Purchases $18.4 million worth of paperboard, $8.7 million of metal containers and $6.4 million of plastic materials.

Rubbermaid
Wooster, Ohio
$23,400,000*

Introduces new containers for consumers and municipalities to sort and collect recyclable refuse, Action Packer insulated storage bins for camping and boating, Thick Wall planters with the look of terra cotta, Bouncer series of activity bottles, 5-quart insulated lunch boxes and Little Tykes Country Cottage.

Stokely USA
Oconomowoc, Wis.
$35,555,000*

Fifteen plants package 102 vegetable and fruit items. Success continues for Stokely's Finest products in white-lined cans and microwave Stokely's Singles in ovenable paperboard. Reports $14.6 million in capital expenditures for new sauerkraut facility, conversion of can plant to frozen food.

Upjohn
Kalamazoo, Mich.
$39,452,000*

Human health business achieves 7% growth. Strong performers are ethical pharmaceuticals Micronase, Xanax and Rogaine treatment for male pattern baldness. Launches Motrin IB pain-reliever to OTC market, Progaine shampoo to users of Rogaine and Ansaid prescription medicine for arthritis.

UST
Greenwich, Conn.
$32,050,000*

Moderate volume growth of 3% for U.S. Tobacco's smokeless products—Copenhagen and Skoal. Ships 520.2 million cans. Bandits Classic chewing tobacco goes national. Stimson Lane Wines moves 31% more cases under Chateau Ste. Michelle, Columbia Crest, Conn Creek and Villa Mt. Eden labels.

* Estimate